AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS IN THE CASE

The following listing of claims replaces all previous listing of claims:

1-12. (Canceled)

13. (Currently Amended) A computer-readable medium having stored thereon a program, which when run on a processor, performs a method of managing a network, said method comprising:

a) comparing addresses associated with packets received at a first port in said network with expected addresses for said first port to determine unexpected addresses; and

b) tracing a topology of said network to determine a second port at which a packet associated with an unexpected address entered said network. ~~locating a second port in said network that is a source of an unexpected address if said unexpected address is detected~~.

14. (Original) The computer-readable medium of Claim 13 wherein said network is a virtually-wired switching network and said first port couples switches in said network and said second port is coupled to a host device.

15. (Currently Amended) The computer-readable medium of Claim 13, ~~wherein b) of said method comprises tracing a topology of said network to~~

~~determine said second port,~~ wherein said network comprises a virtually-wired switching fabric ~~and said second port is at the edge of said fabric~~.

16. (Original) The computer-readable medium of Claim 15, wherein said method further comprises:

c) taking corrective action at said second port, wherein said second port is coupled to a host device.

17. (Original) The computer-readable medium of Claim 15, wherein said method further comprises:

c) disabling said second port, wherein said network is a virtually-wired switching fabric and said second port is at the edge of said fabric.

18. (Original) The computer-readable medium of Claim 13 wherein a) of said method comprises reading a bridge table to determine learned addresses at said first port.

19. (Original) The computer-readable medium of Claim 13 wherein a) of said method is repeated for each interconnect port in said network, wherein said network comprises a plurality of switches.

20. (Original) The computer-readable medium of Claim 13, wherein said method further comprises:

c) determining changes in physical topology of said network.

21. (Original) The computer-readable medium of Claim 20 wherein c) of said method comprises comparing a physical description of said network with a stored physical description of said network.

22. (Currently Amended) A method of managing a network, said method comprising:

accessing a database of a stored physical topology of said network to obtain authorized addresses at host ports of switches;

[[a)]] configuring a switch in said network to forward a packet received at a first port if an address associated with said packet is authorized for said first port;

~~[[b)]] forwarding said packet if said address is authorized; and~~

[[c)]] comparing a set of learned addresses against a set of expected addresses, said learned addresses comprising addresses associated with packets processed at a second port, said expected addresses derived from an expected configuration of said network; and

tracing a topology of said network to find a third port where an unexpected address entered said network, said third port coupled to a device having a media access control (MAC address) that is said unexpected address.

23. (Cancelled)

24. (Currently Amended) The method of Claim [[23]] 22, further comprising:

[[e)]] disabling said third port, wherein said network is a virtually-wired switching fabric and said third port is at the edge of said fabric.

25. (Currently Amended) The method of Claim 22, wherein said configuring the switch further comprises[[ing:]] configuring the switch to

[[d)]] drop[[ping]] said packet if said address is not authorized.

26. (Currently Amended) The method of Claim 22, wherein [[a)]] said configuring the switch comprises programming [[a]] the switch in said network to recognize authorized addresses for said first port.

27. (Currently Amended) The method of Claim 22, wherein [[b)]] said configuring the switch further comprises configuring the switch to forward[[ing]] said packet to a host device if said address is authorized for said first port, said first port coupled to said host device.

28. (Currently Amended) The method of Claim 22, further comprising:

[[d)]] determining changes in physical topology of said network.

29. (Currently Amended) The method Claim 28 wherein [[d)]] said determining changes in physical topology comprises comparing a physical

description of said network with [[a]] said stored physical topology ~~description~~ of said network.

30. (Original) The method of Claim 29 wherein said address is a media access control (MAC) address and wherein said network comprises a virtually-wired switching fabric.

31. (Currently Amended) A network comprising:

a plurality switches;

said switches interconnected and configured to control communication between a plurality of devices coupled to said network;

a database having stored therein a stored physical topology of said network and authorized addresses associated with packets processed at ports of said switches, wherein said authorized addresses are based on said stored physical topology; [[and]]

a configuration agent that is able to program said switches based on said authorized addresses

~~a first switch of said plurality configured~~ to detect a packet having an unauthorized ~~media access control (MAC)~~ address; and

a management agent that is able to:

compare addresses learned by said switches against said authorized addresses to determine an unauthorized address; and

trace a topology of said network to determine a port where a packet associated with said unauthorized address entered said network.

32. (Currently Amended) The network of Claim 31, wherein:

said ~~first~~ switches [[is]] are further configured to forward said packet if said address is authorized.

33. (Currently Amended) The network of Claim 31, wherein:

said ~~first~~ switches [[is]] are further configured to drop said packet if said address is not authorized.

34. (Original) The network of Claim 31, wherein there is a one-to-one mapping between ports of said switches and ports of said devices.

35. (New) A network as recited in Claim 31 wherein said addresses are medium control access (MAC) addresses.

36. (New) A network as recited in Claim 31 wherein said network comprises a virtually-wired switching fabric.

37. (New) A network as recited in Claim 31 wherein said management agent is further able to determine changes in said physical topology of said

network and to update said stored physical topology and authorized addresses in said database based on said changes.

38. (New) A network as recited in Claim 37 wherein said configuration agent is further able to re-program said switches based on said updates to said authorized addresses.